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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,527	03/27/2001	Lawrence E. Foltzer	05043.P003	2827

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EXAMINER

PAYNE, DAVID C

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/819,527

Applicant(s)

FOLTZER, LAWRENCE E.

Examiner

David C. Payne

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Darcie US 5,559,624 (Darcie).

Regarding claim 1, Darcie disclosed

A method comprising:

transmitting a bit interleaved optical data stream on an optical network (e.g., col./line: 4/55-65).

Regarding claims 2 and 9, Darcie disclosed

establishing a plurality of transmission time slots, each time slot corresponding to one of a plurality of optical transmitters (e.g., col./line: 4/55-65).

Regarding claim 13, Darcie disclosed a computer readable medium attachment to the system for control (e.g., col./line:

4/10-15).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darcie US 5,559,624 (Darcie).

Regarding claims 3 and 10, Darcie does not disclose enabling each of the plurality of optical transmitters to transmit an optical bit during its corresponding time slot. However, it would have been obvious to one of ordinary skill in the art at the time of invention that the bit interleaving as discussed by Darcie requires each transmitter to only transmit during its appointed time-slot or otherwise simultaneous transmission during a bit period from more than one transmitter would produce incoherent data downstream.

Regarding claims 4 and 11, Darcie does not disclose adding an additional optical transmitter to the optical network. It would have been obvious to one of ordinary skill in the art at the time of invention to add an additional transmitter for the benefit of transmitting more information such as in an additional television channel. Adding transmitters to an optical system is extremely well known in the art. Furthermore, increasing the number of duplicate parts is not considered patentable over the prior art.

5. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darcie US 5,559,624 (Darcie) in view of Quayle US 6317234 B1 (Quayle).

Regarding claims 6 and 8, Darcie disclosed a head end (Figure 12 #980) but not coupled by a PON splitter to a plurality of transmitters. Quayle disclosed a head-end (Figure 1, e.g., col./line: 5/60-67) coupled to a plurality of transmitter via a splitter (Figure 1 #4).

It would have been obvious to one of ordinary skill in the art at the time of invention couple the Darcie head-end in such a

manner so that the signal from the head-end can be duplicated to each ONU without requiring separate transmitters to each ONU and all the associated circuitry for power and timing of separate transmitters at the headend.

6. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darcie US 5,559,624 (Darcie) in view of Dowd et al. US 6639931 B1 (Dowd).

Regarding claims 5, 7 and 12, Darcie does not disclose wherein at least one of the plurality of optical transmitters is a vertical cavity surface emitting laser.

Dowd disclosed (VCSELs) vertical cavity surface emitting lasers. It would have been obvious to one of ordinary skill in the art at the time of invention to use VCSELs in the Darcie system for the benefit that VCSELs are particularly suited for producing a circular beam of light. Such a circular beam requires little or no further optical processing before application to devices as discussed by Dowd (see col./line: 1/30-40).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Darcie US 5,559,624 (Darcie) and Quayle US 6317234 B1 (Quayle) as applied to claim 6 above, and further in view of Dowd et al. US 6639931 B1 (Dowd).

Darcie does not disclose wherein at least one of the plurality of optical transmitters is a vertical cavity surface emitting laser.

Dowd disclosed (VCSELs) vertical cavity surface emitting lasers.

It would have been obvious to one of ordinary skill in the art at the time of invention to use VCSELs in the Darcie system for the benefit that VCSELs are particularly suited for producing a circular beam of light. Such a circular beam requires little or no further optical processing before application to devices as discussed by Dowd (see col./line: 1/30-40).


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (703) 306-0004. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dcp



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